DOCUMENT RESUME

ED 096 071 RC 008 113

AUTHOR	Sciara, Frank J.
TITLE	Determining the Effectiveness of the Continued Use of Criterion-Referenced Reading Tests in the Inter-State Cooperation of Migrant Education Programs. A Pilot Study.
INSTITUTION	Ball State Univ., Muncie, Ind. Inst. for the Preparation of Teachers of the Disadvantaged.
SPONS AGENCY	Indiana State Dept. of Public Instruction, Indianapolis. Migrant Div.; State Univ. of New York, Genesco. Center for Migrant Studies.
PUB DATE	Jan 74
NOTE	63p.; Appendix A of this document duplicates ED 057 984, "Criterion-Referenced Tests--A New Promise for Old Problems in Migrant Education"
EDRS PRICE	MF-$0.75 HC-$3.15 PLUS POSTAGE
DESCRIPTORS	Continuous Progress Plan; *Cooperative Planning; *Criterion Referenced Tests; Educational Coordination; *Interstate Programs; *Migrant Child Education; Program Coordination; *Reading Tests; Teacher Attitudes
IDENTIFIERS	*Indiana; Texas

ABSTRACT

The study determined the effects of using criterion referenced reading tests on children enrolled in migrant education programs. The main purpose was establishing educational continuity through interstate cooperation. The study involved migrant students in grades K-6 from Texas (a home base State) programs who arrived in the Indiana (a receiving State) programs. A systematic search for a viable population was made and a research design generated; but because of poor crop conditions in Indiana, the Texas target group did not appear in sufficient numbers to actualize the research plan. The new project goal was to introduce the criterion referenced approach into several Indiana cooperative migrant education programs to determine the type of problems encountered from a variety of sources. Migrant programs in Elwood, Walton, and Converse administered the Criterion Reading materials to their students and reported teachers' perceptions. Some findings were: (1) overall the teachers' response to this approach was positive and (2) most highly valued were the materials' diagnostic nature as well as the concept of educational continuity and visible evidence of progress made possible through this approach. Many Indiana teachers felt that initiating the tests was time consuming in a short term program and that more teaching could be spent with the children if the tests were instituted at the home base State. (Author/NQ)

ED 096071

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

BEST COPY AVAILABLE

DETERMINING THE EFFECTIVENESS OF THE CONTINUED USE OF CRITERION-REFERENCED READING TESTS IN THE INTER-STATE COOPERATION OF MIGRANT EDUCATION PROGRAMS

A PILOT STUDY

by

Dr. Frank J. Sciara, Director
Institute for the Preparation of Teachers
of the Disadvantaged
Ball State University
Muncie, Indiana 47306

Sponsored by

Indiana State Department of
Public Instruction
Migrant Division
Indianapolis, Indiana

New York State Center for
Migrant Studies
State University College of
Arts & Science
Geneseo, New York 14454

January 1974

RC008113

BEST COPY AVAILABLE

ABSTRACT

The purpose of this study was to determine the effects of the use of criterion-referenced reading tests on children enrolled in migrant education programs with the main purpose of establishing educational continuity through interstate cooperation. Two states involved in this study are Texas, a home base state for migrants, and Indiana, one of the receiving states.

A systematic search for a viable population was made and a research design was generated. Because of poor crop conditions in Indiana, the targeted group from Texas did not appear in sufficient numbers to actualize the research plan. Another approach was adopted using other populations in which criterion-referenced reading tests were utilized and the perceptions of the teachers reported.

Overall the Indiana teachers' response to the criterion-referenced reading approach was positive. Most highly valued were the diagnostic nature of the materials as well as the concept of educational continuity and visible evidence of progress which were made possible through this approach. Many Indiana teachers expressed the view that initiating the criterion-referenced reading tests were time consuming in a short term program and that more teaching time could be spent with migrant children if the tests were instituted at the home base state.

Because of this study in Indiana, many of the 42 migrant education programs will utilize a criterion-referenced reading approach for the 1974-1975 school year.

ACKNOWLEDGEMENTS

I want to express my gratitude to Dr. Fred Croft, former state director of migrant education in Indiana and to Dr. Gloria Mattera, Director of the New York State Migrant Center, for their support and encouragement in conducting this study. To Charles de la Garza who served as assistant director of this project, a special thanks for all his hard work, long hours of travel, and ingenuity in finding ways to re-direct the study is extended.

Ted Stovall, formerly of the New York State Migrant Center was extremely helpful and understanding when unpredictable problems were encountered. My appreciation is extended for his help.

The unnamed Texas migrant education program teachers and administrators in Donna, Mercedes, Crystal City, and Mission were cooperative and enthusiastic about the project. A special measure of gratitude is extended to them.

A special note of appreciation to the following personnel of the various Indiana migrant education programs who were most helpful in the various phases of this study; Bob Brooke, Eileen Richason, Joe Barnett, Margaret Robertson, Roger Howe, Phil Stephenson, Treva Fagan, Kay Brasch, Martha Hinkle, Shirley Eads, Ellice Gallagher, Barbara McHaffie, Linda Baker, Verna Rinker, Mrs. Paul, Mike Sawa, and Gloria Anzaldua.

Finally, I want to express my gratitude and admiration to the migrant children who cooperated so willingly and whose efforts and determination to learn made the study worthwhile.

TABLE OF CONTENTS

Chapter		Page
I.	BACKGROUND OF THE PROBLEM	1
	Introduction	1
	Statement of the Problem	3
	Procedures	5
	Scope and Limitations	6
	Basic Assumptions	6
	Organization of the Study	7
II.	REVIEW OF RELATED LITERATURE	8
III.	METHODS AND PROCEDURES	15
	Population	15
	Research Method	18
	Amending the Original Research Purpose	23
	Determining a New Direction for the Study	25
IV.	FINDINGS	27
	Perceptions from Migrant Education Teachers at Elwood	27
	Perceptions from Migrant Education Teachers at Walton (Southeastern School Corporation)	30
	Perceptions from Migrant Education Teachers at Converse	35
V.	SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	41
	Summary	41
	Conclusions	43
	Recommendations	43
BIBLIOGRAPHY		46
APPENDICES		47

LIST OF TABLES

Table		Page
1	Frequency Count of the Texas Home Bases of Students in Five 1972 Indiana Migrant Education Programs.....	17
2	A Cross Tabulation of the Five Most Mentioned Texas Home Bases of Students in Five 1972 Indiana Migrant Education Programs.....	18
3	Combined Total Migrant Children Available for Study in the Four Selected Texas Programs.....	19
4.	A 32 Pupil Typology Generated from the Control of the Variables of Sex, Language Proficiency, School Attendance, and I.Q. Range.....	21
5.	A Listing of the Home Bases of 184 Migrant Children Enrolled in the Autumn, 1973, Migrant Education Program --- Southeastern School Corporation.....	32

LIST OF APPENDICES

Appendix		Page
A	"Criterion-Referenced Tests— A New Promise for Old Problems in Migrant Education.....	48
B	Report Form.....	53
C	News Reports of Crop Conditions.....	55

CHAPTER I

BACKGROUND OF THE PROBLEM

Introduction

The problems of migrant laborers who harvest agricultural crops throughout this country are many. One of the greatest of all the problems created by transient style living and interstate travel is that of educating migrant children. Only through the acquisition of an education which allows a youngster from a migrant background to compete equally with advantaged youngsters in the opportunities and rewards that American society has to offer, will the intergenerational transmission of the migrant life style and its many problems be alleviated.

Rivera pinpoints the problems of educators who are attempting to meet the educational need of migrant children. He states:

> Educators in those areas where the migrant is employed are being challenged to establish a continuum in the educational structure of the migrant youngster. This is possibly an insurmountable task since everything we do in education today is geared around a static population -- a school year of 9½ months or 183 days, teacher assignments and textbooks, bus schedules. The basic factor that heretofore has prohibited an equal educational opportunity for a migrant child has been his mobility -- he resides or maintains a home base in such states as Texas, California, and Florida for 5½ to 6 months. The remainder of the year he travels in groups or alone to such states as Michigan, New York, Washington, Oregon, and Tennessee.[1]

A 1969 evaluation report of migrant education in Texas indicates specific educational problems that result from a life style over which a migrant child and his parents have no control and one to which ed-

---

[1]Vidal A. Rivera, "The Forgotten Ones: Children of the Migrants," The National Elementary Principal, Vol. L, November, 1970, p. 42.

ucational systems in this country have failed to respond adequately. The report states:

> Although the study indicated that the project schools are more adequately meeting the educational and social needs of the migrant child than are non-project schools, several needs and problems common to any migrant population were identified:
>
> 1. Mobility, causing curriculum, teacher and program discontinuities.
> 2. Retardation, both in age-grade placement and achievement. The typical migrant student is overaged and under-achieving.
> 3. Language barriers, such as monolingual (Spanish-speaking) migrant students in schools were only English is allowed, some school staff attitudes hostile to the use of Spanish, and little opportunity for learning and expressing ideas in a bilingual atmosphere.
> 4. Poverty, involving many unmet physical needs such as hunger, clothing, housing, and health.
> 5. Dysfunctional information transfer system, making it almost impossible to move educational information about the child with the child.
> 6. Community non-involvement, with the few school-home contacts being problem oriented and little use being made of community service-assistance agencies.
> 7. Dysfunctional personality characteristics, including lack of identity, alienation, anxiety, fear, shame, low motivation, low interest, low aspiration level, negative self-image.
> 8. High dropout rate and low retention in secondary schools.
> 9. Dysfunctional school responses to migrants, including, in some instances, little concern on the part of teachers and administrators, evidence of prejudice and other poor attitudes, unprepared teachers, inadequate programs, poor materials, poor facilities, inadequate diagnostic means, inadequate support personnel, and low per pupil expenditure.[2]

The above list bears witness to the gross failure of state education agencies to relate adequately to the problems of migrant children. Each of the listed problems are not discrete items, but interdependent and linked to each other in a relationship of cumulative effect.

If such an assumption is true, then it would seem logical to assume that a change in one or more problem areas will have an effect upon the others

---

[2] Evaluation of Migrant Education in Texas: A Summary, Southwest Educational Development Corporation, 1969, p. 4.

The Uniform Migrant Record Transfer System with its rapid means of sending and retrieving information regarding a migrant child is useless unless the information enables that child's teacher to make a quick decision which will provide continuity in that child's education. Normative-referenced tests provide percentiles or grade equivalent scores which are of very limited usage to a teacher who wishes to make proper placement of the migrant child in educational materials. Too often, migrant children are re-taught skills they have already mastered and by the time the teacher is fully aware of this, many children have moved to another school and another teacher, repeating a wasteful and destructive approach which further retards the education of the migrant child.

An investigation of an approach to end this wasteful process, attempting to replace the present approach with specific knowledge of reading skill mastery and continue the child on to the next level of reading competency through the use of criterion-referenced reading tests in an interstate cooperation design is the major thrust of this study.

Statement of the Problem

A study design was utilized in an effort to investigate a viable approach to educational continuity in migrant education through interstate cooperation among selected migrant education programs in Texas and Indiana. One of the most important areas of the curriculum, reading, was selected as the focus of study. Investigated also are the barriers, handicaps, and other kinds of problems inherent in attempting to study a highly mobile and often unpredictable population.

Objectives of the Study

The general objectives of this project were:

1. To provide a continuum in the instructional area of reading through the inter-state use and information transmission of criterion-referenced reading tests in migrant education programs.

2. To determine if the use of criterion-referenced tests in an inter-state cooperation design in selected migrant education programs results in greater reading skill development than in those selected migrant education programs in which this appraoch is not used.

3. To investigate and make specific recommendations for inter-state cooperative designs in migrant education programs which can be of greater benefit to the education of migrant children based upon the results of this study.

In order to determine if the general objectives were realized, the following questions were formulated:

1. Can an effective educational continuum in the area of reading be established for migrant children?

2. Will the use of criterion-referenced reading test enable migrant children to learn the necessary reading skills at a more rapid rate, than its non-use?

3. Can the results of reading skill competencies as identified by use of criterion-referenced tests by:

   a. easily transferred on the present migrant record system?
   b. easily interpreted and utilized by teachers?

4. Will a design of interstate cooperation result in greater skill accumulation in reading?

5. Will there be a difference in the gains in reading skills made by the project group be greater than the non-project group?

6. Will there be a difference in the gains of males and females?

7. Will there be a difference in the gains of migrant children depending upon their I.Q. scores as measured by standardized tests?

8. Will there be a difference in the gains of children with a major reliance upon the Spanish language than those who do not?

9. Will there be a difference in the gains of children who attend school for 150 days per year than those who do not?

10. Will there be a difference in the level of self concept expressed by project children and non-project children in grades 3-6?

Procedures

In order to achieve the central purpose of determining a viable approach to educational continuity in the area of reading through a design of interstate cooperation and the use of criterion-referenced reading tests, a careful selection of the study population was made. A frequency count of the homebase schools of five Indiana migrant education projects were made so that a concentration of the group to be studied were made. Using a cross tabulation, five Texas migrant education programs were identified which provided the greatest number of migrant students to the five Indiana migrant education programs.

Cooperation was sought in the spring of 1973 from the Texas migrant education programs and those which did cooperate were provided criterion-referenced reading tests and materials, an intensive workshop session in Texas regarding the study and the use of the materials as well as report sheets on which to record significant data.

The test results and the test booklets were shipped to Indiana to await the arrival of the study population of migrant students.

Several workshop sessions were held in Indiana for teachers and administrators from the five selected Indiana migrant education programs to familiarize them with the criterion-referenced testing approach, the materials, and the scope and nature of the project to be attempted.

Originally, a pre-test/ post test design was planned so that results of the study group migrant children exposed to criterion-referenced reading tests could be compared with those migrant children from the same school districts who traveled away from Texas, but were not exposed to the criterion-referenced reading approach.

A number of factors prevented the original study plan from being

followed so that alternative approaches were attempted which are discussed in Chapter III.

Scope and Limitations

The scope of this study was limited to selected migrant education programs in both Indiana and Texas in an attempt to evolve continuity in the education of migrant children through a design of interstate cooperation. Although many considerations are necessary in planning and maintaining educational continuity, only one area was considered, reading. This was studied through the use of criterion-referenced tests marketed by Random House under the title, Criterion Reading.

In addition to the limitations of population and curricular area; the study was limited by restricting the focus to children in the elementary grades.

Basic Assumptions

This study was dependent upon the following basic assumptions:

1. Adequate cooperation to conduct the study would be obtained from both Indiana and Texas migrant education programs.

2. Information regarding the identification of a viable study population could be obtained through the two Migrant Student Record Transfer System terminals in Indiana.

3. Teachers and administrators in both Indiana and Texas migrant education programs selected for the study would diligently utilize the criterion-referenced reading tests and provide the necessary information so that a proper analysis could be made of the data collected.

4. Some measure of reliability of the relocation of migrant children from the previous (1972) year would occur as adults returned to Indiana to harvest crops during the summer.

5. The tests selected for use were readily available, valid and reliable, and appropriate for use with migrant children.

Organization of the Study

This investigation is organized into the following sections:

Chapter I	Introduction and Problem Statement
Chapter II	Review of Related Literature
Chapter III	Methods and Procedures
Chapter IV	Presentation and Analysis of Data
Chapter V	Summary, Conclusions, and Recommendations

CHAPTER II

REVIEW OF RELATED LITERATURE

The lack of success of the present educational design in providing for the education of migrants is documented in a number of ways. Perhaps the most telling of these reports is the Evaluation of Migrant Education in Texas: A Summary which discusses the education attainment and conditions of 65,000 migrant students in Texas. Several of the entries attest to the need for further efforts to be made in migrant education. The following comments should be studied carefully:

> The migrant child spends four to six months away from his home base, each year missing at least one-third of a school year. Academic retardation soon places the child considerably behind the resident school child, with the gap widening with each year.[3]

> Generally, migratory children have been unable to attain stabilized and continuous academic instruction. A 15-year-old child in the third or fourth grade is not uncommon.[4]

> For example, only 14 percent of all migrant students in Texas are enrolled in secondary schools - Source: Survey of Migrant Students in Texas (SEDL, May, 1968).[5]

Rapid mobility of migrant children coupled with an educational approach geared for accommodating stable youngsters has produced a panorama of national failure in adequately providing for an education which considers the characteristics and needs of migrant children. This is not to say that

---

[3] Evaluation of Migrant Education in Texas: A Summary, op. cit., p. 10.

[4] Ibid.

[5] Evaluation of Migrant Education in Texas: A Summary, op. cit., p. 32.

there has been a lack of effort, but that the present efforts have produced very limited effects.

One of the big problem areas which has not been resolved has been that of providing a continous education program design which can follow the migrant child wherever he goes. The migrant child is heir to an ineffective educational design which is local in nature and lacks the ability to take the migrant child and advance him to the next skill level in the academic subjects. The resultant effects of exposure to education in fragmentary form is a confused, low achieving learner whose potential is rarely, if ever, realized.

The Texas evaluation report state that even within that state, problems of educational continuity exist in project schools with special programs for migrant children. Consider the meaning of the following comments:

> The project school, it appears, is adjusting itself to the needs of the migrant child. However, the widely varied, trial and error techniques and methods employed in meeting these needs suggest that inconsistent and ill-defined notions still exist concerning the special educational and social needs of the migrant child.[6]

Further evidence for the need for a viable educational plan for migrant children which transcends the local school and even the state can be found in the recommendations of the National Committee on the Education of Migrants. In their 1971 report, they state:

---

[6]Evaluation of Migrant Education in Texas: A Summary, op. cit., p. 30.

> It has been the Committee's belief that solutions to the educational problems of migrant children are not to be found in the hit or miss manner of present patterns of program development by the states and local school districts.[7]

This committee indicates a need for an approach which is built on interstate cooperation. They state:

> Migrant children are found at some time during the year in each of 47 states. (Only Alaska, Hawaii and Rhode Island report no use of migrant farm labor.) Most of these children will live for various periods of time in two or more states. Their periods of migration do not coincide with the school term, but rather include, as a rule, the end of one term in the spring and the beginning of another in the fall. Therefore their education should become the concern of more than one school district in more than one state. Given these patterns of migration, the education of migrant children is a problem, national in scope and interstate in nature. Any effort to provide for migrant children's educational needs must likewise be nationwide and include the many states involved.[8]

Furthermore, they suggest:

> The nationwide and interstate nature of the migrant child's educational problems calls not for 47 separate ways of attacking the problem, but for national leadership and planning which exhibit a united purpose and determination to find the migrant child wherever he is and meet his needs whatever they may be.[9]

Agreement for this position can be found in the position taken by Rivera. He states:

---

[7] Wednesday's Children, A Report on Programs Funded under the Migrant Amendment to Title I of the Elementary and Secondary Education Act, New York, National Committee on the Education of Migrant Children, 1971, p. 5.

[8] Ibid.

[9] Wednesday's Children, op. cit., p.7.

> In order to effect a significant program of assistance to the migrant worker and his children, the approach must be national. In the area of education, a national approach means interstate cooperation--an exchange of ideas, curriculum approaches, and methodology; a call for imagination and creativity in our schools; a need to bridge state lines by cooperatively planning an educational program. Our thinking must become as mobile as the children we serve. But how do we educate a mobile population? This, then, is the issue--a challenge, as American as apple pie.[10]

This need for venturing beyond local and state planning approaches for increasing the effectiveness of educational effort is underscored by Rivera in other parts of his article. He says:

> Today, migrant education must become a top priority in the educational systems that serve these youngsters. The need for interstate cooperation has been established, and its product is a reality. Increased efforts must be made, however, if we are going to provide a meaningful continuum of education for all children.[11]

Again, his point is made as he includes among his recommendations for directions in migrant education:

> Seek alternatives to state-by-state planning of educational programs that negates a continuing instructional plan for migrant children.[12]

The Senate Subcommittee on Migrant Labor listed among its recommendations for migrant education:

> ... better interstate coordination, exchange of teachers, techniques, and recommendations.[13]

The almost, classic, Children at the Crossroad which describes national problems and efforts in migrant education states:

---

[10]Rivera, op. cit., p. 43.

[11]Ibid. p. 44.

[12]Ibid.

[13]Children at the Crossroad, A Report of State Programs for the Education of Migrant Children under Title I of the Elementary and Secondary Education Act, U.S. Office of Education, 1970, p. 41.

> Whatever progress is made will be rooted in the cooperative efforts of Federal, State and local governments.[14]

Perhaps, the need for interstate cooperation can be underscored by the following:

> There are no quick answers to migrant education, but migrant children all over the country are benefiting from further consolidation of the national effort.[15]

Still, the diverse patterns in which migrant families move, present special chalenges for improving migrant education program.

> The challenges that the states face in meeting the needs of migrant children are many. The states that have these children in their schools for up to six months must plan a program based on late entries and early withdrawals, usually from the middle of October through April. Other states must plan "summer programs," often misnamed because they necessarily overlap into the regular school. Other challenges involve the entire spectrum of academic and supportive services.[16]

A recent improvement in migrant education has been the establishment of the Uniform Migrant Student Record Transfer System. This national network carries the potential for the rapid transfer of student information through quick access to student records. As the vehicle for migrant student record transfer develops and improves its efficiency, a fresh look should be taken at the student data which is transmitted and its utility to the teacher, if she is to provide continuity for that migrant student's education.

According to the Texas evaluation report:

> Administrators reported using tests, teachers' judgment, and records or report cards as criteria for placement of the migrant child in a particular grade level.[17]

---

[14] Ibid.

[15] Ibid.

[16] Rivera, op. cit., p. 42.

[17] Evaluation of Migrant Education in Texas: A Summary, op. cit., p.22.

This is the type of information presently being sent from the migrant student record system. Clearly, a grade equivalent score, a percentile or stanine rating have limited usage in educational placement of children who move rapidly from one school district to another.

The National Committee on the Education of Migrant Children takes a position which would be supported by many people involved in migrant education programs throughout the country. They declare:

> The initiative for educational planning and implementation must be assumed by the Migrant Programs Branch of the United States Office of Education. It must assist the states and local projects to more clearly define program objectives and components which are built on specific assessment of the individual educational needs and interests of the migrant children served, and on consultation with migrant parents about their educational aspirations for their children.[18]

Regarding the migrant student record system, the committee states:

> Major energies and concerns of both the national staff and the states have been devoted to the development of an Interstate Record Transfer System. The Arkansas Education Department was funded in 1969 for the amount of $426,150 to develop the System which was to operate manually for fiscal year 1970 and become mechanized in 1971. NCEMC has made an effort to evaluate this phase of the program since its stage of development is such that evaluation at this time would, we believe, have little significance. However, it should be noted, that while local administrators in those schools visited by NCEMC observers are complying with record keeping procedures, they do not share the optimism of the national and state leaders that a record system will solve their problems in education migrant children.[19]

Thus, a need for building an educational program for migrant children based on an assessment of individual needs and interests is apparent. But, how can this be done by teachers in local school systems if the information they receive is of a general, rather than specific indication of educational

---

[18] Wednesday's Children, op. cit., p. 117.

[19] Ibid. p.6.

attainment? It's no wonder that teachers, at the present, see little help arriving from the newly operationalized migrant student record system.

However, a recently developed diagnostic instrument is commercially available which has the potential for providing teachers with a specific assessment of student achievement--criterion-referenced tests. Availability of these tests, presently, is limited to the areas of reading, reading-language, and mathematics.

This researcher has published a paper which describes the application of this type of instrument to migrant education. (See Appendix A)

One cannot attack the many problems in migrant education in a global fashion, but attempt to concentrate upon a few problem areas, seeking viable solutions to these. Interstate cooperation should be attempted on a limited basis to determine the important areas of cooperation and define the conditions under which these can be effectively and efficiently accomplished.

In summary, the literature reviewed lends support to the position that continuity in the education of migrant children is a high priority item in the list of problems to be solved or conditions to be overcome in the area of migrant education. Because of the frequent movement of migrant children covering many states, the need for federal monitoring of migrant education programs and the importance of interstate cooperation becomes readily apparent.

Only one publication could be found that suggests the use of criterion-referenced tests in migrant education as a means of establishing educational continuity. This paper was authored by the present investigator of this study.

CHAPTER III

METHODS AND PROCEDURES

Population

Attempting to define a population for a study which endeavors to explore the possibility of educational continuity and interstate cooperation is a serious problem when working with students from the families of migrant agricultural workers. However, it was thought that several approaches might be profitably explored.

The first approach was to place a telephone call to the national data bank for migrant student records in Little Rock, Arkansas. This was made by Dr. Fred Croft, the State Supervisor for Migrant Education in Indiana. Since migrant records are totally computerized, it was requested that a frequency count be made of the number of migrant children coming to Indiana during 1972 by hometown or home school district.

This would have enabled the study personnel to determine the greatest concentration of migrant students in no more than three school districts or hometowns from the home state, Texas. A cross tabulation of Indiana school corporations which enrolled these same children during the summer and fall of 1972 would have identified the Indiana schools to be included in the study.

Much to the dismay of many, the request could not be honored by the people in Little Rock. The reason given was that their computer was not programmed to produce such data.

Step number two consisted of checking with the two terminal operators of the Migrant Record Transfer System in Indiana to determine if a frequency count of migrant children by Texas hometown or home school could be made from their "chits." Both operators felt that the needed information could be generated from such an approach.

In an attempt to establish greater reliability, the records for 1971, as well as those for 1972 were utilized. College students were hired on a part-time basis to code such items as sex, grade, Texas hometown, Indiana migrant program attended, and year on optical scanner sheets. From the optical scanner sheets, hollerith cards were made through an electronic transfer system.

A frequency count of the variables employed, as well as a cross tabulation between Indiana schools and Texas towns was requested from the Computer Center at Ball State University.

Almost 6600 cases had been recorded. This had taken many days and many hours of time.

The computer print out revealed that 75 percent of the cases were without the hometown or home school. The remaining 25 per cent were thought to be too small a number on which to make reliable determinations to identify a study group.

After conferring with Dr. Croft, it was thought that a check of each of the 42 migrant education programs in Indiana might produce enough records of the hometowns of migrant children to establish the location of the study groups in Texas.

Using a letter approach with follow-up telephone calls, only four of the 42 migrant education programs in Indiana were able to produce the data requested.

A frequency count was made by hometowns in Texas. This is shown in Table 1.

TABLE 1

FREQUENCY COUNT OF THE TEXAS HOME BASES
OF STUDENTS IN FIVE 1972
INDIANA MIGRANT EDUCATION PROGRAMS

HOME BASE SCHOOLS	Kokomo	Huntington	Walton	Lebanon	TOTALS
Brownsville	53		5		58
Donna	17		21		38
Weslaco	15		4		19
Mission			15	16	31
Mercedes	2		22	3	27
Eagle Pass			19		19
Crystal City		27			27
Laredo	8	8	1		17
McAllen	4	4		11	19
Matten		1			1
Pharr	13		7	8	28
Harlingen			5	4	9
Rosebud	1				1
Bay City	8		5		13
Los Fresnos	4				4
San Benito	9		3		12
San Antonio	8				8
Plainsview	6				6
Del Rio	1				1
Edinburg	5		2		7
Abeline	12				12
Alascosa			2		2
Santa Rosa	8		10		18
Sebastain			4		4
McCallan	5				5
Dallas			2		2
Pimmitt	1				1
Hutto			1		1
Corpus Christi	2				2
Lorraine	1				1
Sweetwater	1				1
Lubbock	8				8

Additionally, a cross tabulation was made of the five Texas cities with the greatest concentration of migrant children by Indiana migrant education programs. This is shown in Table 2.

TABLE 2

A CROSS TABULATION OF THE FIVE MOST MENTIONED TEXAS HOME BASES OF STUDENT IN FIVE 1972 INDIANA MIGRANT EDUCATION PROGRAMS

		K	W	L	H	
Brownsville	58	53	5			Kokomo
Donna	38	17	21			Kokomo Walton
Mission	31	--	15	16		Walton Lebanon
Crystal City	27	--			27	Huntington
Mercedes	25	--	22	3		Walton

Once the cooperation of the Indiana migrant education programs was assured, contact was made in early spring by Charles de la Garza of the Indiana Migrant Education Division with the identified Texas school districts. All of the school districts were willing to cooperate, except Brownsville which indicated an oversubscription to other migrant research projects.

RESEARCH METHOD

It was decided initially that all migrant children enrolled in the cooperating Texas schools would be given the Random House criterion-referenced reading tests. It was decided that those migrant children

from these Texas groups who came to the project migrant education programs in Indiana and were taught through the use of the criterion-referenced reading test would become the experimental group. Other migrant children from the selected Texas schools who were not subjected to this particularized reading approach would become the control group.

The total estimate of subjects available for the study totaled over 1200, for the four selected Texas migrant programs. This is shown in Table 3.

TABLE 3

COMBINED TOTAL MIGRANT CHILDREN AVAILABLE FOR STUDY IN THE FOUR SELECTED TEXAS PROGRAMS

Grade Level	Number
k	150
1	185
2	165
3	180
4	180
5	175
6	200
	1235 Total

Since this number was too large and too expensive for purposes of the study, a random sampling plan was devised with every third child tested from the programs with larger enrollment and every other child tested from the smaller programs.

From this design, it was thought that a sufficiently larger number of children could be tested. Those children from the four selected

Texas programs who arrived in the Indiana migrant education programs selected for study who had missed being tested through the random sampling procedure in Texas, were to be tested in Indiana.

This research design, it was thought, would allow a comparison of the effectiveness of the criterion-referenced reading approach in a sort of pre-test and post test plan. The achievement of those children in the experimental group who were subjected to the criterion-referenced reading approach in the five Indiana migrant programs could be compared with the reading achievement of migrant children from the same home base in Texas who were not exposed to the criterion-referenced reading approach. A post test was planned for November for both study groups at their home schools in Texas. Thirty-two pupil classifications were established in order to analyze the data. Included in the pupil classifications are the following variables: sex, English language proficiency, school attendance and I.Q. These classifications are shown in Table 4.

TABLE 4

A 32 PUPIL TYPOLOGY GENERATED FROM THE CONTROL OF THE VARIABLES OF SEX, LANGUAGE PROFICIENCY, SCHOOL ATTENDANCE, AND I.Q. RANGE

	Sex	Language Proficiency	School Attendance	I.Q. Range
1.	Female	1	1	< 80
2.	Female	1	2	< 80
3.	Female	2	1	< 80
4.	Female	2	2	< 80
5.	Male	1	1	< 80
6.	Male	1	2	< 80
7.	Male	2	2	< 80
8.	Male	2	2	< 80
9.	Female	1	1	81-90
10.	Female	1	2	81-90
11.	Female	2	1	81-90
12.	Female	2	2	81-90
13.	Male	1	1	81-90
14.	Male	1	2	81-90
15.	Male	2	1	81-90
16.	Male	2	2	81-90
17.	Female	1	1	91-100
18.	Female	1	2	91-100
19.	Female	2	1	91-100
20.	Female	2	2	91-100
21.	Male	1	1	91-100
22.	Male	1	2	91-100
23.	Male	2	1	91-100
24.	Male	2	2	91-100
25.	Female	1	1	> 100
26.	Female	1	2	> 100
27.	Female	2	1	> 100
28.	Female	2	2	> 100
29.	Male	1	1	> 100
30.	Male	1	2	> 100
31.	Male	2	1	> 100
32.	Male	2	2	> 100

The employment of a pupil classification allowed for comparison of achievement as measured by gains registered in the criterion-referenced reading test so that important variables as sex, English language proficiency, school attendance, and I.Q., could be controlled.

English Language proficiency was to be determined by a suitable instrument such as the Hoffman Bilingual Scale. Students ranking on the higher end of the bilingualism scale will be classified as a 2 on this variable; others will be placed in the 1 category.

School attendance is a very important variable which should be controlled in any statistical study of academic achievement of migrant youngsters. A study of migrant student records should enable the researcher to determine a cut-off point to determine a classification of 1 or 2. Those with the greater number of attendance days in migrant education programs in Indiana will be ranked with a 1 and those with a lower number of attendance days will be ranked 2.

I.Q., as measured by standardized group intelligence scores, is culturally biased and unreliable when applied to minority groups. Since the comparison is not between members of majority and minority group members, I.Q. scores derived from standardized tests can serve as an important variable to control. Because high correlations are found between group I.Q. testing instruments, no attempt will be made to obtain scores from a single instrument. Fully realizing that I.Q. scores obtained from these instruments do not measure the true intelligence of these migrant youngsters, the following classifications will be used for ease of analysis: I.Q. scores less-than 80, I.Q. scores between 81-90, I.Q. scores between 91-100, I.Q. scores beyond 100.

In order to measure the self concept change in children the Piers-Harris Children's Self Concept Scale was selected.

A report form for data collection to be completed by the selected Texas migrant education programs can be found in Appendix B.

Amending the Original Research Purpose

Following the pre-planning and establishment of study population, Charles de la Garza, in the early spring of 1973, invited cooperating selected Texas migrant programs to send migrant education directors and staff members including teachers and teacher aides to a series of meetings for orientation to the research project and the necessary training for using the adopted materials, Criterion Reading (published by Random House).

The two day meeting was held in McAllen, Texas, with not only good attendance and representation from the Texas migrant education programs of Mission, Mercedes, Crystal City, and Donna, evident, but a real spirit of cooperation, interest, concern for the educational continuity of migrant children, and a fascination for the purposes of the research project as well.

Following the training session, the pre-test (or outcome books) as well as the record sheets were shipped from Texas to Indiana to await the arrival of migrant youngsters for the summer program.

In late spring, an orientation and training session was held in Kokomo, Indiana, for teachers and administrators who would be using the Criterion Reading materials. The migrant education programs of Kokomo, Walton, and Lebanon were well represented. Huntington with an autumn migrant program, did not send representatives to this meeting. Here, again, the teachers and administrators were more-than-willing to cooperate

because they saw the need for educational continuity and expressed belief in the potential of criterion-referenced tests as a vehicle for such continuity.

The record sheets were copied and distributed to program directors with the procedure established that as migrant children arrived in their summer programs, the sheets could be checked to determine if the child were part of the random sample tested in Texas. If the child's name appeared on the list, they were to call the study director's office and the test booklet would be sent to them immediately. If the child was from one of the selected Texas migrant programs but not tested, the test was to be administered in Indiana upon entry of the child in the summer migrant program.

Process books, as well as other materials necessary to utilize the Criterion Reading approach fully were in the possession of each of the selected Indiana migrant education program. Consultants were made available from the migrant division of the Indiana State Office of Public Instruction for assistance to teachers and administrators using the Criterion Reading materials in their migrant education program.

What had been designed and executed was thought to be a viable plan for realizing the aims and purposes of the study, Such a study has not been attempted previously and so it was with much anticipation and hope that this one was tried.

All the factors which could be controlled, were. Much human endeavor, thinking, cooperation, and planning had gone into the study. The one factor which could not be controlled was the weather.

A rainy spring in Indiana had delayed the planting of the tomato crop several weeks which would not appear to be a problem of any magnitude,

but coupled with a summer characterized by cool temperature, it proved disastrous for this study. The Texas migrant children who had been identified to be included in the study, who had appeared in quantity in other years, simply did not enroll in any migrant education programs in Indiana during 1973 in any workable population clusters.

One of the targeted sites for the study in Indiana, Lebanon, had an insufficient number of migrant children to even open a program. This was the first time in five years that this has happened. Kokomo and Walton did open migrant programs but with very few children from the Texas home sites previously identified for this study. Huntington, which has an autumn program, repeated a similar pattern with from 1 to 2 children in each grade from the Texas home base sites included in this study. See Appendix C for several newspaper articles which give the full story of the effects of the weather on migrants in Indiana.

Although migrant agricultural workers are employed in other harvesting and food processing operations, the tomato industry in Indiana outranks all other activities of this type as a source of employment. Thus, the greatest loss was to the income of migrant workers as a result of poor weather conditions. This study suffered as well.

Summer migrant education programs in Indiana are of short duration, running from 4 to 6 weeks, so that little could be done to alter the original research design when the study population failed to appear at the pre-selected study sites.

Determining a New Direction for the Study

In several conferences with the Indiana State Supervisor for Migrant Education, it was decided that rather than waste the time, effort, energy,

and materials from the pre-testing and training of teachers, a modified objective should become the new project goal. This was to introduce the criterion-referenced approach into several cooperative migrant education programs in Indiana to determine the type of problems encountered from a variety of sources. Teachers involved would honestly state their reactions and those of their students to this approach with the main thought of viewing criterion-referenced reading as a means of promoting some degree of educational continuity in the lives of migrant children.

Three Indiana migrant programs agreed to try the Criterion Reading materials with migrant children and to report the results of their trial. Additional workshops were held to instruct teachers, teacher aides, and administrators in the philosophy and use of the Criterion Reading materials. No additional materials were purchased. A re-distribution of the materials from the original Indiana migrant programs provided a sufficient amount and variety of materials.

The results of the teacher reports are found in the next chapter.

CHAPTER 4

FINDINGS

In the last chapter the need to abandon the original research design and to attempt to salvage the investment made in materials and manpower was related. Four attempts were made with migrant education programs with the main intent being to expose teachers and children to the criterion-referenced reading approach and to get both negative and positive perceptions regarding the whole procedure.

Three of the attempts were successful. These were with the Indiana migrant education programs located in Elwood, Walton, and Converse. A fourth attempt in which all the Criterion Reading materials and a consultant from Indiana were offered at no expense to the school district in exchange for six weeks of trial with at least three teachers and a report of their perceptions was turned down by the migrant education program in Donna, Texas. Nearby 300 children had been tested in Donna in the spring with the Criterion Reading materials and it was hoped that a short run use of the materials during the autumn might produce a type of data that might lend itself to a more thorough analysis than was possible in Indiana.

Perceptions from Migrant Education Teachers at Elwood

Elwood, Indiana operates a six week summer migrant education program. It was in this program that 25 migrant youngsters from the selected Texas school districts were found. None of them had been tested in Texas. With 9 days of school left, Mr. Joe Barnett, the migrant program administrator, agreed to the the administration, of the Criterion Reading materials (outcome books). It was hoped that these migrant youngsters

might be grouped with others in an autumn migrant education program in Indiana and the original research design applied. This, later, proved to be of no avail as many of the migrants from this group moved from Indiana to other states.

Following a half day workshop and a week in which to utilize the Criterion Reading materials, the teachers related their perceptions. These perceptions are as follows:

Teacher - Linda S. Baker
Level - Pre-school

I felt the biggest help with the tests would have been to have longer to give them. We were really rushed for time, even with the small number we tested.

I was very impressed with the test as a whole - I gave only level I. I would like to use it with my own class. However, I felt it was too difficult for the pre-schoolers. Even when my aide gave it to them in Spanish it was too much for all of those who were 3 or 4. The 5 year olds who would be in kindergarten right now were able to handle it.

Teacher - Verna Rinker
Level - 1st and 2nd grade

The Criterion Reading Research Project for Migrant education was a valuable experience. I was able to see where the children should have been working. I only regretted I did not have the test or any information when the children entered.

Because our program is only one that lasts for six weeks, I felt that taking a whole week out for testing was a bit too much especially when some had to go into a harder test and others had to go back to easier tests. Perhaps I didn't understand an easier way to give the test without running into that problem.

For the teacher that works with these children the majority of the year, I feel these tests and their results could be very useful as a guideline for the children's education.

Teacher - Mrs. Paul
Level - 2nd grade

On the whole - I think its a good idea and could really solve some teaching problems in the migrant program.

My major problem was finding an exact skill level to write down. The child and 4 P's, 2 N's, 3 P's. Which one do you stop him at? I think a total checksheet sent to the new

teachers would be more informative and would help her spend less time grouping for the right level and give her more teaching time. It would also be easier to set up skill groupings with a total checksheet.

Teacher - Mike Sawa
Level - 5th and 6th grade

Feelings

When I was introduced to the evaluation it scared me. (Process book, Student book, Evaluation book, etc.) But after reading about it, your explanations, and actual use, it is really rather simple. I have used many of its ideas which I remember in my classroom.

Unfortunately, I evaluated only one student, so I cannot consider myself a very reliable source, but I do hope some of my ideas might be helpful. Thanks for giving me the chance to use it as well as the education I received about it.

Good

1. It was rather easy to administer. Instructions were clear.
2. The tests did seem to progress with more difficulty in each area.
3. It did give a pretty good estimate of where the student was at that point.
4. I like having an evaluation on each student.

Bad

1. When I was testing, I had to obtain a completely different level because my student could not pass any tests in a certain area. This also means an extra evaluation booklet for 1 area.
2. I didn't like the tests when you could miss one question and not pass the test. It seems that there is no consideration for the possibility of carelessness.
3. It did seem like it was very time consuming. I hope there is some way that it can be given when testing an entire class, in a manner which would take less time. (But I feel it must be administered individually.)

Overall

I think it is a very worthwhile evaluation and I hope I get a chance to use it again. My primary regret is that I did not have it at the beginning of Migrant School. It would have really been helpful.

One would expect that with only a period of about a week, teachers would express uncertainty and insecurity with an approach which they didn't have time to study further. This seems to be a common feeling among these teachers.

Along with this one also can note the teachers' sense of the utility of the criterion-referenced approach. Several expressed the wish that they had received the tests results (from the home state school) so that they might have continued each child's progress with the various reading skills.

Several teachers felt that the initial diagnosis was time-consuming so that in order for a six week summer migrant program to initiate the testing, much instructional time would be lost. Implicit in this viewpoint is a desire for the testing to be completed in the migrant child's home base school.

The test seemed to be of little use for pre-schoolers aged 3 and 4, according to one teacher, but useful for 5 year olds getting ready for kindergarten.

In spite of the problems encountered from short exposure and limited usage of the Criterion Reading materials, a positive attitude toward the materials and their potential is expressed overall.

Perceptions from Migrant Education Teachers at Walton (Southeastern School Corporation)

Teachers in the Southeastern School Corporation had been instructed in the early summer at the Kokomo workshop, but did not formally apply and record the Criterion Reading approach during the summer program because of the insufficient numbers of migrant children from the selected Texas migrant education programs.

In the autumn program, Mrs. Martha Hinkle, the remedial reading teacher, taught and supervised other teachers and helpers in several schools which were serving migrant children. According to Mrs. Hinkle's report, a total of 184 children were given the Criterion Reading tests and several teachers

used the companion materials also. She reports that this was about half the number of migrant children compared to last year's enrollment.

To demonstrate the lack of population cluster, the home base towns as well as the number attending the autumn migrant education program in the Southeastern Corporation are shown on the next page in Table 5.

Teachers in this migrant education program used the Criterion Reading materials for an average of six weeks and with some students as long as eight weeks. Their perceptions and feelings are stated below:

> The Criterion Test was very helpful in working with the migrant children. It showed what areas the child needed the most help. The children were always eager and worked very hard. They didn't even want to go outside for recess. If we made them go out they would ask to come right back in and work. If they saw us in the hallway they wanted to know if we were going to come and get them next.
>
> I worked mornings in a classroom with four migrant children. One girl in the group didn't speak any English. This was quite a barrier as I didn't speak Spanish. The other girls would tell her what I wanted done. Although I was never able to give her the test we worked on the basic color words and several other words. She was able to tell what the words were and could use them correctly in sentences. This was a very rewarding experience.
>
> Mrs. Shirley Eads
> Galveston Elementary

> Since the Criterion Reading Test was presented to the migrants in the summer, we teachers were able to find a definite starting point for instruction at the beginning of the regular school term. It also contributed toward a more individualized program. Much valuable teaching time was saved because the need to find a starting point for the migrant students was met by reviewing the test results. Too, since the children were already familiar with the program they tended to be more responsive and out-going. This contributed to the readiness for learning experiences which they would encounter. Some who were reluctant to participate in the past did not show such a need for a lengthy warm-up-period. The very young children were also more ready to talk and become active participants. This created a liking for school--consequently we did not have quite the attendance problem as in past years.

TABLE 5

A LISTING OF THE HOME BASES OF 184 MIGRANT CHILDREN ENROLLED IN THE AUTUMN, 1973, MIGRANT EDUCATION PROGRAM -- SOUTHEASTERN SCHOOL CORPORATION

State	Home Base	No. of Students
Texas	Bryan	9
	Edinburg	10
	Macentire	6
	Kerrville	1
	Pearsall	5
	Dilly	11
	Pharr	7
	Brownsville	7
	McAllen	2
	Dallas	1
	Oddonnel	1
	Raymondville	1
	Eagle Pass	10
	Donna	12
	Wesloco	5
	Bay City	2
	Sebastian	2
	Mercedes	8
	Mission	7
	San Benito	1
	Santa Rosa	11
Florida	Dade City	36
	Zolpho Springs	2
	Wauchula	7
	Lakeship	5
	Balm	3
	Naranja	2
	Pompano Beach	3
	W. Palm Beach	4
South Carolina	Frogmore	1
Indiana (settling out)	Galveston	4
	TOTAL	184

The progress as a whole was good. One of my own personal observations was that since it was such a new program it was difficult to place each in a level where he could best perform.

Some had been placed in an advanced level and needed to back up and then there were some who could have performed successfully in the next higher level. This of course was easily corrected. They were given the opportunity to be placed in their own ability level.

Each child finished his part in the program with a sense of accomplishment, thus giving a feeling that he or she possessed a degree of worth. Isn't this part of what education is all about?

I would like very much to see this program repeated the following year -- perhaps with our own remedial students?

Ellice Gallagher
Walton Elementary

The Criterion Test definitely pin-pointed each child's weakness so that we were able to start helping them right away. Usually it is the 3rd or 4th week before we can find their problems.

I found that practically all of the children had trouble with prepositions -- such as under, beside, across, etc. Told one little girl to stand beside me. She said, "What's beside?" I had often told the children to stay behind me on the stairs. After CR I realized that they did not understand what I had meant.

These children seem to have great difficulty in accenting our words properly. I'm wondering if perhaps they should be left alone -- pronounce the words their own way -- makes them a much more colorful people.

CR covered such a variety of things -- the five senses -- the three states of matter -- the seasons of the year -- many things. I feel we learned more about each child at this end of testing than we normally learn in the 6 or 7 weeks they are with us.

Barbara Mehaffie
Special Reading Teacher
Washington Twp.

In regards to the CR program this year I must say I was very pleased with it. We were able to pin-point the problem more quickly and therefore begin helping the child immediately.

Little Jesse Zuniga came into the room one day to be helped. He was looking over a list of words after he had learned some of his sounds and found he could sound out and say 4 words. He looked over at his sister Benjy who was being helped by Mrs. Eads and said, "I can too." They were both first graders.

The children would ask many times if they could miss recess and stay in and work. If we thought they needed to have recess they would ask if they could come back in after recess.

When we went to their room to call the children out, the ones who didn't get to come would whisper, "me too, me too?"

In the mornings when they got off the bus and we were out to meet them the first thing they wanted to know was, "Will you come and get me today?"

We always tried to take a few minutes and let the children tell us of some of their experiences. They love to talk about their homes, and families.

One of the boys is going to move into a new home when he returns to his winter home. He described it so well that we had a good picture of the house. He was in the 4th grade.

I took 10 children to my home this summer for an afternoon. Each year I try to do this because they enjoy it so much. I have to do this quietly and quickly because they all beg to come. Time doesn't permit this.

The work we have done with the migrant children is now showing in their abilities to carry on in the regular classroom. I'm sure this Criterion Program will help even more. Some of the teachers have asked us not to take some of the migrant children out of the classroom any more than needed because they are getting along so well.

Martha Hinkle
Reading Teacher

In another communication Mrs. Hinkle lists what she considers to be some of the apparent weaknesses of the Criterion Reading materials as she noted them while working with migrant children. She states:

On level 3, the prepositional phrase "over the fence" is misleading.

We feel punctuation should be initiated on Level 3. Also, the vowels modified by an r are not a true evaluation of er - ar - or. It is the same with the vowel diphthongs.

On level 2, "Verbal Information", the child does not understand what the picture is trying to convey. Also on this level, "Inferring Mood", possibily a picture of a sheriff or soldier would be a better idea of bravery instead of a knight. The picture of the grocery was misleading to the children. It liiked as if the children were playing with a cart in the picture. The numbers on level 2 should extend beyond number 10 in ordinal and cordinal. The no statements are too hard on this level also, as well as the questions.

Referring back to level 3, there needs to be page on the months of the year in this level. We feel also, that the children should be doing cursive writing instead of manuscript writing.

Should a lot of time be spent on level 3 in the section of stressed syllables and schwa sounds or maybe just expose this to the child? In the "Verbal Information" section, we feel that is is too hard. There are too many words the child has never heard of. For example; sandpaper, rough, pleasing, silent, fragrant.

Having the use of the criterion-referenced reading materials over a longer time period than the Elwood migrant education program teachers produced many more positive perceptions. The Walton teachers were able to see the long range effects of this approach in terms of the improvements children made in adjustment to school, language mastery, reading improvement, and the children's feeling of accomplishment.

Several teachers noted the motivation that was derived from children who wanted to change the N (for not passed) on their progress chart to a P (passed). Children exhibit a high degree of motivation when they refuse recess or voluntarily shorten it in order to spend more time working on a specific reading skill.

Children felt positive about the approach (and no doubt, the teachers) as they asked time and time ago to be taken out of the regular classroom in order to work with the special reading teachers.

A desire to use the Criterion Reading materials with migrant children next year as well as an expression to utilize these same materials with non-migrant children reflects the favorable view of these teachers towards this reading approach.

Perceptions from Migrant Education Teachers at Converse

In an attempt to seek wider exposure and reaction to the use of the Criterion Reading approach, the autumn migrant education program at Converse was contacted and they agreed to participate. Following an evening of

instruction in the workings of the approach, materials were distributed and teachers began using the Criterion Reading approach. A total of 112 migrant children were tested for approximately 6 weeks with the materials with three teachers participating. Perceptions of two of the teachers were collected and are included as follows:

RE: Criterion Reading Program -- Readiness Class

I feel the Criterion Reading Program could be very useful to the migrant child if it were continued in each school he attends. I enjoyed working with the program and felt it was beneficial to the children and me. It gave in a step-by-step order the skills a child needed to master before going on to more complex tasks. The program also backed diagnostic work I had done earlier in the season in assessing each child's ability.

I would like to have started the program at the beginning of the season. In the time we had to work with the program, I found the children became tired of being "tested". If we had more time, the testing could have been less concentrated and the children would have accepted it more readily.

My aide, Gloria Hernandez, was extremely helpful in this program. Since several of the tests had to be given individually and were time consuming, I had Gloria do the testing leaving me free for instructional purposes. She could give the instructions both in English and Spanish, eliminating the language barrier. I found this most beneficial for the 5 year olds since this was their first acquaintance with a school situation and a totally English speaking environment.

The first section of Level I, Motor Skills, was successful. The children enjoyed doing the exercises in this section. This was a "fun" section with a minimum amount of pressure being placed on the child, starting the program out on a good beginning.

After working with the program, I would suggest the following changes to be considered.

Motor Skills, Section 11-13 - Tracing Three-Demensional Shapes The child is to trace the shapes within 1/16 of an inch. I had very few children who could do this on the first try. Many of the 5 year olds never were able to accomplish this or the Process Skills Evaluation tasks that accompanied this assessment. I feel it might be better if this skill were to be introduced later in the program.

Motor Skills, Section 11-14 - Cutting Along a Line With Scissors. Since we were asked to draw the lines to be cut on a separate piece of paper, I found manilla paper was easier for the children to work with and provided more success than light weight onion skin.

Auditory-Motor, Section 13-35 - Word Sequence.
The children are to repeat familiar and unfamiliar words in the order the teacher says them. The unfamiliar words suggested were extremely difficult for a Spanish speaking child.

Auditory- Motor, Section 13-36 - Nonsense Word Sequence.
Since they were nonsense words with no meaning to the children, many refused to even try saying the sequence.

Although the use of onion skin enabled us to work with the limited supply of books, I feel it may have been the source of some errors. In many cases I was unsure in grading their responses as to where they had placed the X's. The colors did not show through the onion skin clearly, causing some confusion for the children. In tracing, I feel some error may have been caused by slipping of the onion skin.

A printing error has been made on Learning Evaluations: Auditory-Motor 13-21. The pupil's book and teacher's manual do not match.

I feel it would be advantageous to do several exercises in following directions prior to Section II where the children work mostly in the books. This would alert the teacher of who is having problems in understanding and following instructions. I also feel a section on the ability to hear rhyming words could be added to the testing in this program.

I feel the continuation of this program would be very beneficial to the child. Since it is individualized, the child could progress at his own speed. It would also eliminate relearning skills in each school he attends due to the teachers being unsure of what has been taught and what has not been taught.

Enclosed please find the record sheets that I kept for this program. If a child did not pass the outcome evaluation but later passed the skill in the Learning Evaluation -- a P is written over the N in a different color of ink.

I would like to thank you for the time and consideration you have given us while working with this program.

Sincerely,

Treva Fagan

Evaluation of the Criterion Reading Program

The Criterion Reading Program was the first experience I have ever had with such a program. I cannot praise the program, the concept, and the way it is set up enough. It was great for pin pointing individual problems and grouping children for work in their problem areas. My only wish is that it had come to me two weeks sooner.

I can see where this program would work nicely in a regular classroom situation as well as in a class of migrant children. As for the migrant children, if the program is set up between Indiana and their home state, it would bring continuity to their education as well as being a tremendous help to their teachers. I know in my own classroom it was two to three weeks before I felt I knew approximately where each child was and with children coming and going almost daily the problem was even greater. The Criterion Reading Program could help tremendously with this problem. Time is an important factor when working with children who are always on the move.

Administering and grading the tests this first time though took a great deal of time, but all of us felt it was time well spent. It benefited us in our classroom and hopefully will benefit the teachers in Florida and Texas as well as Indiana next fall. This would consequently help each child.

As far as a regular classroom is concerned, this could be set up between grades so that each year the teacher would have the child's score from the year before. After all, our grading system only puts an arbitrary grade down for each subject with no specific criterion for each subject. This program could eliminate the guesswork as to where each child's weaknesses lie. I am not of the opinion that it would be the only system of evaluating and teaching reading, but I feel it would be a great boost to any reading program.

Like all good things, the tests did have some drawbacks. First of all, the artwork was very abstract. It was very difficult for the children to understand. This accounted for some of the errors the children made. Also, there were several instances where the art work was of such poor quality, that even I had difficulty in deciding what they were trying to depict. For a test that was specifically designed for children of Mexican-American background, it had far too many items that they were not familiar with because of their background. On all the tests there was one answer for each line, then suddenly on one test the children were instructed half way through the test to begin circling two answers for each line. It was very confusing for them.

All in all, the problems are such that they can be remedied. I feel the program could be very successful and truly hope that work on it is continued.

Kay Brash

Both teachers in the Converse migrant education program agreed that the initial testing of children was time consuming, but valuable. They seemed to agree that had they had the scores of the criterion level of each child in reading at the beginning of the program, they could have maximized their instructional time and efforts.

Overall the teachers agreed that the diagnostic qualities of this approach were highly beneficial to the teacher and that educational continuity could become a reality for migrant children if this system or one similar to it were employed.

Mrs. Fagan utilized her teacher aide to administer the tests while she instructed another group of children. She also noted the enjoyment which the children experienced in accomplishing the Level 1 motor skills.

Both teachers expressed some criticism of the Criterion Reading materials which caused them problems. Mrs. Fagan stated that many of her Spanish-speaking migrant children would not use nonsense words which had no relevance for them. She also mentioned the difficulty children experienced in repeating unfamiliar words after they were pronounced by the teacher. The printing error for skill 13-21 makes a mis-match of the pupil's book and the teacher's manual.

A shortage of Level I and Level II outcome books forced the trial of onion skin overlays as a means of utilizing the pupil response book without consuming it. Some problem was encountered because of this approach.

Mrs. Brash noted that because some of the artwork was poorly done in the Criterion Reading materials, a number of student errors were made. A child may have mastered a certain concept or skill, but commits an error, not due to his lack of knowledge, but due to poorly depicted visual representation.

The rapid shift from one answer requirements to two answers within the same test was also cited as a problem area.

Definite problems were encountered by both teachers in relating Anglo concepts, vocabulary, idioms, and expressions to children of Spanish-speaking backgrounds. These would appear to indicate the level of acculturation

among their student population. This should be viewed as a revelation, rather than a problem. The diagnostic nature of the criterion-referenced reading approach identifies the individual mastery level of specific skills and concepts for each child, indicating for the teacher a clear direction to be followed in order to avoid meaningless teaching. Specific reading and language skills as well as conceptual knowledge to be mastered are identified so that relevancy takes on a new meaning.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

In order to test the effectiveness of the use of criterion-referenced reading tests as a means for establishing educational continuity for children of migrant agricultural workers utilizing a pattern of interstate cooperation between a home base state, Texas, and a receiving state, Indiana, a research plan was designed.

Unable to use computerized records of migrant children at the national data bank for migrant student records, and unsuccessfully obtaining the needed data from the two migrant record terminals in Indiana, a population for the study was established through information furnished by four Indiana migrant education programs --- Kokomo, Walton, Lebanon, and Huntington. A frequency count revealed the largest concentration of migrant children from the Indiana programs to be the Texas home base cities of Brownsville, Mission, Mercedes, Crystal City, and Donna.

Thirty-two pupil types were generated by controling the variables of sex, English language competency, school attendance, and I.Q. range. These were evolved for purposes of analysis.

Selecting the Criterion Reading materials as the criterion-referenced reading test to be utilized, a random sampling of migrant children was pre-tested in Texas, in the spring of 1973.

A post testing in the autumn of the same children who were taught during the summer with the Criterion Reading materials and those who were not, was the approach selected for determining the impact of the use of the criterion-referenced reading emphasis on migrant children.

Excellent cooperation and enthusiasm were evident from the selected Texas migrant education programs as well as from those selected migrant education programs in Indiana.

Near the end of the summer, it became evident that the Texas migrant students identified and pre-tested for purposes of this study did not appear in sufficiently large concentrations in any Indiana migrant program to complete the study. The combined factors of an unusually rainy spring and cool summer temperatures conspired to produce a late maturing tomato crop which greatly reduced the total number of migrant workers in Indiana.

In an effort to utilize the Criterion Reading materials which had been purchased and to pilot test the use of these materials in a short term migrant education program, three trial sites in Indiana were attempted at Elwood, Walton, and Converse. One attempt in the autumn of 1973, of seeking the cooperation of the Donna (Texas) migrant education program to utilize the almost 400 pre-test results of migrant children was not successful.

Perceptions of the Indiana teachers, for the most part, were highly positive with some definite criticisms of the test construction itself as well as the time factor involved in initiating the reading criterion scores in a short term program.

The teachers involved in the trial of the criterion-referenced reading appreach expressed a belief that such a system could foster the educational continuity which appears to be one of the seemingly unsurmountable problems in migrant education and has been for quite some time. Utilization of criterion-referenced test could produce a new dimension of meaning to inter-state cooperation in the education of migrants.

Most of the teachers involved in the study felt that criterion-referenced reading tests should be continued in the Indiana migrant education programs.

Conclusions

The following conclusions appear to be appropriate from the data gathered for this study:

1. Criterion-referenced reading tests provide a sound basis for diagnosis of reading skill development, identifying those which students have mastered as well as those to be learned next.

2. Criterion-referenced reading tests can provide educational continuity in the area of reading for migrant children.

3. Initiation of criterion-referenced reading tests are time-consuming and difficult to establish in a short term (4-6 wks.) summer or fall program. It is suggested that the home base state (such as Texas) should administer the initial test, forward the scores through the migrant record transfer system, with the receiving state (such as Indiana) continue building reading skills and updating the migrant child's record when he leaves the program.

4. Some portions of the Criterion Reading materials are unclear to the students because of poor visual representations utilized to portray an idea or a concept.

5. Exercises in the Criterion Reading materials which require children to repeat nonsense words appear to be of little value to migrant Spanish-speaking children who are extremely reluctant to engage in such activity.

6. It would appear that some of the concepts in the English language presented in Criterion Reading are so strongly rooted in the Anglo culture that these ideas are either missing or poorly developed in migrant children who major language and cultural orientation are other than English.

7. Since the reading and language skill development of migrant children appears to be uneven, the taxonomical order of the Criterion Reading materials lacks the meaning that it likely has for children from stable rather than transient populations.

8. Teacher aides should be carefully trained in order to make the most of the Criterion Reading approach.

Recommendations

A study of this type underscores the unpredictable patterns of migrant laborers because of their dependence upon the weather and its effects upon

the crops harvested by the migrants. It also highlights the resulting problems upon a receiving state such as Indiana, in terms of its efforts to improve its approach in the education of children of migrant agricultural laborers.

From the study that was made and the type of problems experienced, the following suggestions are forwarded:

1. The national data center for the migrant record transfer system should program their computers so that a frequency pattern by hometown of migrant children entered in migrant education programs within a state may be made. The frequency count should be cross-tabulated with existing programs within that same state. If such data were available over a period of several years, typical patterns of movement could be plotted and a more meaningful effort could be made in providing a relevant education program in both the home base state educational program and the receiving state program.

2. Since the initiation of the criterion-referenced reading tests are time-consuming, and are not easily done in short term summer programs, they should be initiated in the homebase state and forwarded via the migrant record transfer system, in order to maximize instructional time in the educational programs of receiving states. With so much more time to adequately study and analyze migrant students, this seems only logical to expect such a task from the home base state.

3. To make educational continuity a meaningful concept in migrant education, receiving states should continue the reading skill development of migrant children from where they receive them, update the level of progress made, and send this information on by way of the migrant record transfer system.

4. The ideas contained in the preceding statements should be included in the next national migrant education conference. If each home base state for migrants adopted a system of criterion-referenced reading, transferred the reading skills developed to the receiving states, and if the receiving states continued to advance the reading skills of the migrant child, then educational continuity could become a reality in the one important curricular area, reading. This same procedure could be applied to mathematics as there are criterion-referenced materials developed in this area suitable for use.

5. Until such time as the home base states through voluntary or mandated action, begin to use criterion-referenced tests in reading as a means of promoting educational continuity for the migrant child, receiving states as Indiana, should begin to utilize such material in their own migrant education programs. The criterion-referenced reading and oral language materials which are presently being developed in Texas for use

in migrant education programs will differ some from the Criterion Reading materials employed in this study. The concept of the hierarchy of reading and language skills will remain the same, as will many of the major skills included in the Criterion Reading materials.

Personnel in migrant education programs in receiving states who have used criterion-referenced materials will have a background of readiness which will greatly facilitate the change-over to the criterion-referenced materials selected for use by the home base state.

The problems of the migrant child who moves with the crops are many. Use of criterion-referenced tests in reading and language are by no means a panacea, but a giant step in the direction of educational continuity.

Lack of educational continuity has been viewed as a problem of great importance for many years. The means to achieve such a goal have not been available to educators in past years. Educational continuity is possible through the use of criterion-referenced materials now, and coupled with the rapid transmittal of student data through the migrant record transfer system, a new day could be dawning in migrant education.

BIBLIOGRAPHY

1. Children at the Crossroad, A Report of State Programs for the Education of Migrant Children under Title I of the Elementary and Secondary Education Act, U.S. Office of Education, 1970, 48 pp.

2. Evaluation of Migrant Education in Texas: A Summary, Southwest Educational Development Corporation, 1969, 39 pp.

3. Rivera, Vidal A., "The Forgotten Ones: Children of the Migrants", The National Elementary Principal, November, 1970, pp. 41-44.

4. Wednesday's Children, A Report on Programs Funded under the Migrant Amendment to Title I of the Elementary and Secondary Education Act, New York: National Committee on the Education of Migrant Children, 1971, 132 pp.

APPENDICES

APPENDIX A

"CRITERION-REFERENCED TESTS---

A NEW PROMISE FOR OLD PROBLEMS IN MIGRANT EDUCATION"

Criterion-referenced Tests--
A New Promise for Old Problems in Migrant Education

Dr. Frank J. Sciara, Director
Institute for Teachers of the
Disadvantaged
Ball State University

For teachers who work with migrant students, many of the challenges and problems found in any classroom are multiplied and intensified because of several factors. One of the greatest factors of all is the short period of time which teachers of migrant pupils have to become acquainted with the student and to program the level of instruction suited to his present level of accomplishment.

One effort of recent development has been the initiation of newer and faster methods of retrieval of migrant student records, utilizing a national data bank and retrieval by means of the teletype. A vast improvement over past methods of receiving migrant student records by mail, it still fails to provide teachers with explicit information as to which specific skills a student possesses.

Too often, many skills in such areas as reading and mathematics are re-taught to students who have already mastered these skills because the teacher has inadequate knowledge of the mastery level of students.

To teach migrant children skills they already possess is both a source of frustration and a waste of time. And remember, one of the greatest deficits in migrant education is insufficient instructional time in the classroom! Migrant students spend less hours in a classroom during the year than any other disadvantaged group.

Published as ERIC Microfiche Ed 057-984.

greatest leficits in migrant education is insufficient instructional time in the classroom! Migrant students spend less hours in a classroom during the year than any other disadvantaged group.

The challenge then, is to maximize the available time the teacher has to work with the migrant student moving him from the level of competence at which he arrives to a higher one by the time he leaves. This is more than a challenge--it's a necessity, if migrant youngsters are to break the chains of ignorance and poverty, which bind them to a future not unlike that of their parents because the schools failed to educate them.

A recent development in education which has great promise for overcoming problems of lack of knowledge of student mastery and the shortage of time is the use of criterion-referenced tests. Criterion-referenced tests in reading and mathematics should be used in migrant education programs.

For years we have used norm-referenced tests which gave us grade equivalent scores, percentile scores, or stanine scores, reflecting where a student stood in relationship to others--his peer group, a referenced group, or some sampled standardization group. While these tests are useful, they fail to give the teacher the degree of mastery of certain skills in reading or arithmetic in an absolute sense. Normative-referenced test scores fail miserably as a tool to aid the teacher in the educational placement of a migrant student who have traveled much, moved often, and as a result has uneven development in the basic skills area.

You're probably wondering by now "Just what is a criterion-referenced test?" Simply stated, a criterion-referenced test is one which

contains a comprehensive inventory of skills in a particular domain or subject matter area, arranged in a hierarchy or taxonomical order which allows a student to demonstrate his mastery of the skills he has learned. A criterion-reference test, of course, should be relevant to classroom instruction. I should include the types of skills commonly taught in text materials and in classrooms. For example, in the area of reading, specifically in reading readiness, skills such as matching shapes, tracing letters, understanding certain concepts as up, below, above, etc. are quite common to almost any basal reader series or kit form type of readers. These are examples of beginning reading skills which students must master in order to go on to more difficult reading tasks such as those needed for critical reading. Reading skills as restating the sequence of events, identifying words which create mood, and analyzing devices of persuasion, all represent some of the highest levels of mastery in this discipline.

Dr. Marie Hackett has identified over 450 skills necessary for competence in reading and language for students from kindergarten to sixth grade. Glenn Roudabush and Donald Green have identified approximately 400 skills which cover 90 to 95 percent of themathematics curriculum commonly taught in grades 4 through 8.

To my knowledge, six major publishers of testing materials are now in the process of developing criterion-referenced tests in reading and arithmetic. These tests should be available by late spring or early summer of this year.

Because the use of criterion-referenced tests enables the teacher to conduct a diagnostic evaluation of a student's mastery in areas as reading and arithmetic with greater precision than ever, a new day could

be dawning in migrant education. The skills are arranged in hierarchy from simplest to most difficult so that assessments of performance skills can be done in a manner which identifies both pupil strengths and weaknesses.

With the use of criterion-referenced tests migrant students can be placed on a level of instruction by the teacher making the most of the instructional time she has to educate these youngsters. A system for transferring knowledge of the skill level in reading or mathematics of migrant students to the next school of attendance could eliminate time which is not now put to the best use and result in greater and more rapid accumulation of needed basic skills. The teacher would not have to reappraise and reassess mastery of skills in reading or mathematics. She could continue on, deviloping the next skill level as identified in the hierarchy of skills.

Both teachers and administrators in migrant education programs should be looking forward to the availability of criterion-referenced tests. Their potential for increasing the educational level of the migrant youngster should not be overlooked. For too long migrant youngsters have been denied the kind of education which allows them a greater and deserving share in the prosperity of America. It is our opportunity and responsibility to educate these students. Let's make the most of it!

APPENDIX B

REPORT FORM

ITEMS	1	2	3	4	5	6	7	8
	STUDENT NUMBER (LEAVE BLANK)	STUDENT NAME	SEX	IQ SCORE	BIRTHDATE	GRADE IN SCHOOL	SELF IMAGE TEST	LEVEL I SENSORY MOTOR

INDIANA - TEXAS MIGRANT RESEARCH PROJECT

NAME OF SCHOOL DISTRICT

5	6	7	8	9	10	11	12	13
			LEVEL I	LEVELS II, III, & IV				
IRTHDATE	GRADE IN SCHOOL	SELF IMAGE TEST	SENSORY MOTOR	PHONOLOGY	STRUCTURAL ANALYSIS	VERBAL INFORMATION	SYNTAX	COMPREHENSION

APPENDIX C

NEWS REPORTS OF CROP CONDITIONS

BEST COPY AVAILABLE

The Rural Route

Night Temperatures Have Slowed Area Tomato Crops

By NANCY DAILEY

CITY EDITION

THE MUNCIE

evening press

MUNCIE, IND., SEPTEMBER 18, 1973

15¢

County's tomato harvest facing many problems

By SHIRLEY SHEPHERD

Area tomato crop falls short again

MUNCIE PRESS 9/5/73

25